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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 06/02/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/305,452	ASO ET AL
	Examiner	Art Unit
	Melanie Jagannathan	2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 March 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 6-10 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 6, 7, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riedel et al. U.S. Patent Number 5,748,615 in view of McDonald et al. U.S. Patent Number 6,442,166.

Referring to claims 6, 8-10, the claimed means for controlling the switching of a plurality of lines in a line-switching unit is anticipated by Riedel et al. where a line unit (see Figure 1, element AE) is connected to input trunks (elements E1 to En) in a switching network (see Figure 1, element SN). The claimed means for storing data transmitted to the line-switching unit is anticipated by a memory means (see Figure 2, element SP) in which a memory area is provided for each connection. See column 7, lines 47-51. The claimed means for allocating data from

data terminal device to plurality of lines is anticipated by a multiplexer (element MUX) connected to the memory control means (element MMU) where the outputs of the signal branches are connected to allocate the data to the output trunks (elements A1-An). See column 7, lines 11-17.

The reference Riedel et al. discloses all the limitations of the claim except for a line unit comprising a means for separately controlling a clock signal for transmitting data and a clock signal for receiving data. McDonald et al. disclose a network including a clock to calculate timing when the data is transmitted and when the data is received in order to determine lateness of the head-of-the-line cell for each connection. See column 2, lines 1-14. The determining of the cell lateness comprises a step of calculating a time deviation for a cell which can be calculated either when the cell arrives or when it is scheduled to leave. The clock for transmitting data is anticipated by the time deviation for a cell being calculated when the cell is scheduled to leave and the clock for receiving data is anticipated by the time deviation for a cell being calculated when the cell arrives. See column 2, lines 32-46 and column 3, lines 6-19. The timing at cell transmission and at cell arrival is needed. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to calculate timing when the data is transmitted and when the data is received. One of ordinary skill in the art would be motivated to do this as it allows for proper flow control and maintains the synchronization of the system.

Riedel et al. discloses all the limitations of the claim except for a means for measuring a line delay time of a plurality of lines in the line unit, the data being transmitted to the plurality of lines by a timing determined for each of the plurality of lines. McDonald et al. disclose a method including means of measuring the lateness of the head-of-the-line cell for each connection and

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transferring this information to a scheduler where it is stored in order to identify the latest cell. The method includes transmitting the outgoing cells according to the lateness estimated by the lateness estimator (Figure 1, element 1). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to measure the line delay time and transmit the data according to the measured delay. One of ordinary skill in the art would be motivated to do this since it prevents loss of data and maintains performance of the system.

Referring to claim 7, Riedel et al. disclose all the limitations of the claim except for a line-switching unit including a clock signal for transmitting data to plurality of lines that is controlled to correspond to the line speed when receiving data from the line. McDonald et al. disclose a network where the lateness of the head-of-the-line cell is measured according to a Variation Fluctuation Smooth algorithm (VFS). This algorithm comprises synchronizing inter-departure times of cells according to DS1 rate. See column 4, lines 50-59. The clock times for each DS1 stream are uniformly spread over the DS1 assembly time. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the transmission clock controlled to correspond to the line speed. One of ordinary skill in the art would be motivated to do this since it allows for the rate to be increased or decreased if needed.

Response to Arguments

2. Applicant's arguments filed March 17, 2003 have been fully considered but they are not persuasive. Examiner appreciates detailed description of prior art Riedel et al. However, in light of claim language, the art rejection is proper.

Applicant argues reference Riedel et al. relates to controlling the timing of the application of data to a single output A1, while the present invention relates to allocating data between a

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plurality of output lines. Examiner contends that Riedel et al. relates to transmitting data between a plurality of lines A1-An (Figure 1).

Applicant argues Riedel's technology relates to controlling the timing of the application of data to a single output A1, with control by a control means STE while the present invention provides a data communication system using a dynamic band variation unit where the number of lines used for communication may be increased or decreased and data may be allocated to various ones of the plurality of lines. Examiner contends Riedel et al. discloses data being transmitted across various ones of the plurality of output lines A1-An (Figure 1). Furthermore, in light of the claim language, Riedel et al. teaches the limitations of the means for controlling the switching, storing data, allocating data, controlling clock signals and measuring line delay times.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Melanie Jagannathan
Patent Examiner
AU 2666

MJ MJ
May 28, 2003

Seema S. Rao
SEEMA S. RAO 5/28/03
SUPERVISORY PATENT EXAMINER
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